

# ***Bloodborne Pathogens***



# Introduction

- Approximately 5.6 million workers in health care and other facilities are at risk of exposure to bloodborne pathogens such as human immunodeficiency virus (HIV – the virus that causes AIDS), the hepatitis B virus (HBV), and the hepatitis C virus (HCV)
- OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure

# Who is covered by the standard?

- All employees who could be “reasonably anticipated” as the result of performing their job duties to face contact with blood and other potentially infectious materials
- “Good Samaritan” acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure

# Some Workers Who are at Risk

- Physicians, nurses and emergency room personnel
- Orderlies, housekeeping personnel, and laundry workers
- Dentists and other dental workers
- Laboratory and blood bank technologists and technicians
- Medical examiners
- Morticians
- Law enforcement personnel
- Firefighters
- Paramedics and emergency medical technicians
- Anyone providing first-response medical care
- Medical waste treatment employees
- Home healthcare workers

# How does exposure occur?

- Most common: needlesticks
- Cuts from other contaminated sharps (scalpels, broken glass, etc.)
- Contact of mucous membranes (for example, the eye, nose, mouth) or broken (cut or abraded) skin with contaminated blood

# Exposure Control Plan

- Identifies jobs and tasks where occupational exposure to blood or other potentially infectious material occurs
- Describes how the employer will:
  - Use engineering and work practice controls
  - Ensure use of personal protective equipment
  - Provide training
  - Provide medical surveillance
  - Provide hepatitis B vaccinations
  - Use signs and labels

# Exposure Control Plan

- Written plan required
- Plan must be reviewed at least annually to reflect changes in:
  - tasks, procedures, or assignments which affect exposure, and
  - technology that will eliminate or reduce exposure
- Annual review must document employer's consideration and implementation of safer medical devices
- Must solicit input from potentially exposed employees in the identification, evaluation and selection of engineering and work practice controls
- Plan must be accessible to employees

# Universal Precautions

- Treat all human blood and certain body fluids as if they are infectious
- Must be observed in all situations where there is a potential for contact with blood or other potentially infectious materials

# **Engineering and Work Practice Controls**

- These are the primary methods used to control the transmission of HBV and HIV
- When occupational exposure remains after engineering and work practice controls are put in place, personal protective equipment (PPE) must be used

# Engineering Controls

These controls reduce employee exposure by either removing the hazard or isolating the worker. Examples:

- Sharps disposal containers
- Self-sheathing needles
- Safer medical devices
  - Needleless systems
  - Sharps with engineered sharps injury protections



# Safer Medical Devices

- *Needless Systems:* a device that does not use needles for the collection or withdrawal of body fluids, or for the administration of medication or fluids
- *Sharps with Engineered Sharps Injury Protections:* a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident

# Work Practice Controls

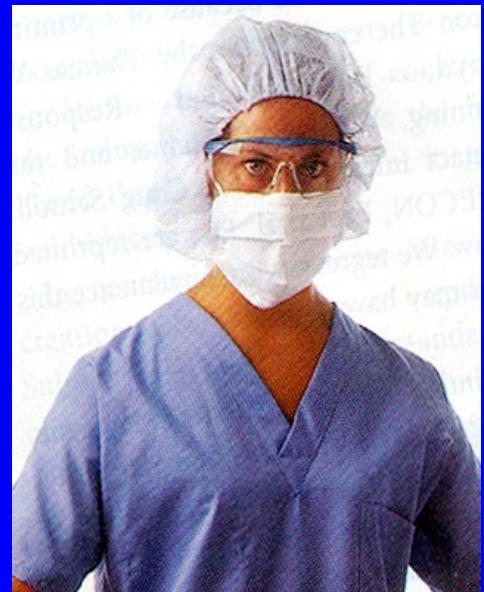
These controls reduce the likelihood of exposure by altering how a task is performed. Examples:

- Wash hands after removing gloves and as soon as possible after exposure
- Do not bend or break sharps
- No food or smoking in work areas



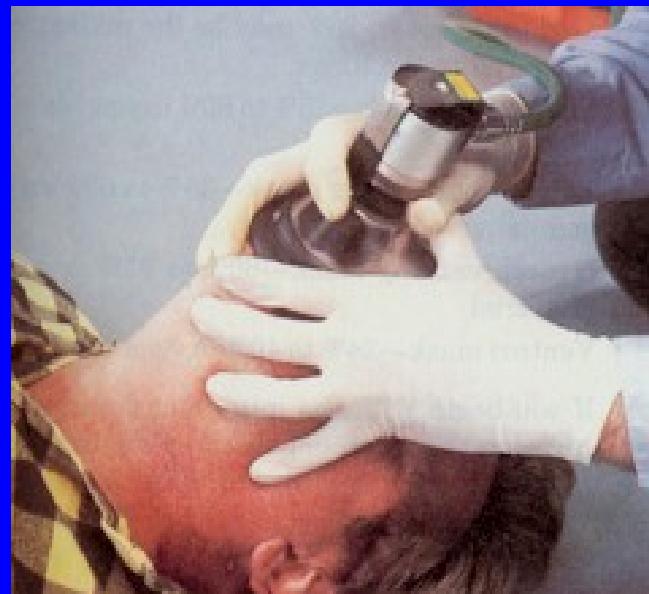
# Personal Protective Equipment

- Specialized clothing or equipment worn by an employee for protection against infectious materials
- Must be properly cleaned, laundered, repaired, and disposed of at no cost to employees
- Must be removed when leaving area or upon contamination



# Examples of PPE

- Gloves
- Gowns
- Face shields
- Eye protection
- Mouthpieces and resuscitation devices



# Housekeeping

Must develop a written schedule for cleaning and decontamination at the work site based on the:

- Location within the facility
- Type of surface to be cleaned
- Type of soil present
- Tasks or procedures being performed

# Housekeeping (cont'd)

Work surfaces must be decontaminated with an appropriate disinfectant:

- After completion of procedures,
- When surfaces are contaminated, and
- At the end of the work shift



# Regulated Waste

Must be placed in closeable, leak-proof containers built to contain all contents during handling, storing, transporting or shipping and be appropriately labeled or color-coded.



# Laundry

- Handle contaminated laundry as little as possible and use PPE
- Must be bagged or containerized at location where used
- No sorting or rinsing at location where used
- Must be placed and transported in labeled or color-coded containers



# Hepatitis B Vaccination Requirements

- Must make available, free of charge at a reasonable time and place, to all employees at risk of exposure within 10 working days of initial assignment unless:
  - employee has had the vaccination
  - antibody testing reveals immunity
- The vaccination must be performed by a licensed healthcare professional



# **Hepatitis B Vaccination Requirements (cont'd)**

- Must be provided even if employee initially declines but later decides to accept the vaccination
- Employees who decline the vaccination must sign a declination form
- Employees are not required to participate in antibody prescreening program to receive vaccination series
- Vaccination booster doses must be provided if recommended by the U.S. Public Health Service

# What to do if an exposure occurs?

- Wash exposed area with soap and water
- Flush splashes to nose, mouth, or skin with water
- Irrigate eyes with water or saline
- Report the exposure
- Direct the worker to a healthcare professional

# Post-Exposure Follow-Up

- Document routes of exposure and how exposure occurred
- Record injuries from contaminated sharps in a sharps injury log, if required
- Obtain consent from the source individual and the exposed employee and test blood as soon as possible after the exposure incident
- Provide risk counseling and offer post-exposure protective treatment for disease when medically indicated in accordance with current U.S. Public Health Service guidelines
- Provide written opinion of findings to employer and copy to employee within 15 days of the evaluation

# Biohazard Warning Labels

- Warning labels required on:
  - Containers of regulated waste
  - Refrigerators and freezers containing blood and other potentially infectious materials
  - Other containers used to store, transport, or ship blood or other potentially infectious materials
- Red bags or containers may be substituted for labels



# Training Requirements

- Provide at no cost to employees during working hours
- Provide at time of initial assignment to a job with occupational exposure and at least annually thereafter
- Additional training needed when existing tasks are modified or new tasks are required which affect the worker's occupational exposure
- Maintain training records for 3 years



# Training Elements

- Copy of the standard
- Modes of transmission
- Site-specific exposure control plan
- Hazard recognition
- Use of engineering controls, work practices and PPE
- Live question and answer sessions

# Medical Recordkeeping Requirements

- Employee's name and social security number
- Employee's hepatitis B vaccination status
- Results of examinations, medical testing, and post-exposure evaluation and follow-up procedures
- Health care professional's written opinion
- Information provided to the health care professional
- Employee medical records must be kept confidential and not disclosed or reported without the employee's written consent (unless required by law)
- Medical records must be maintained for duration of employment plus 30 years according to OSHA's rule governing access to employee exposure and medical records

# Sharps Injury Log

- Employers must maintain a sharps injury log for the recording of injuries from contaminated sharps
- The log must be maintained in a way that ensures employee privacy and must contain, at a minimum:
  - Type and brand of device involved in the incident
  - Location of the incident
  - Description of the incident

# Summary

- OSHA's Bloodborne Pathogens standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure
- Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting AIDS, Hepatitis C, or other bloodborne diseases